



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/324,367	06/02/1999	BORA A. AKYOL	S97-047	1448
30869	7590	03/30/2004	EXAMINER	
LUMEN INTELLECTUAL PROPERTY SERVICES, INC.			LELE, TANMAY S	
2345 YALE STREET, 2ND FLOOR			ART UNIT	
PALO ALTO, CA 94306			2684	PAPER NUMBER
				9
DATE MAILED: 03/30/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/324,367

Applicant(s)

AKYOL ET AL.

Examiner

Tanmay S Lele

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

DETAILED ACTION

*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Auger et al. (Auger; patent no. 6,094,425).

Consider claim 1. Auger teaches a method for frequency-time sliced resource allocation in a wireless ATM network (col. 4, lines 17-67), the method comprising: receiving on a wireless signaling channel a request for access to a shared frequency-time sliced wireless medium (col. 3, lines 34-42; fig. 2 and corresponding text to fig. 2); searching a channel matrix (fig. 2, item 20) for a set of available frequency-time slots (col. 4, lines 60-67), wherein the channel matrix represents a time frame within the shared frequency-time sliced wireless medium (fig. 2 and corresponding text to fig. 2); and allocating the set of available time-slots if the allocation does not violate a frequency switching constraint (col. 4, lines 50-67, and col. 6, lines 35-55), and if

Art Unit: 2684

the set of available frequency-time slots contains a number of slots no smaller than a requested number of slots (col. 3, lines 34-60, and col. 6, lines 38-40).

Consider claim 2. Auger further teaches wherein the searching step comprises searching a channel-chunk matrix comprising a list of contiguous chunks of available time slots in each frequency of the shared frequency-time sliced wireless medium (fig. 2 and corresponding text to fig. 2; col. 3, lines 23-35).

Consider claim 3. Auger further teaches wherein the searching step comprises searching for a set of available time slots such that all the available time slots are in a single frequency (fig. 2, items Q1-Q4, and 20).

Consider claim 4. Auger further teaches wherein the searching step comprises searching for a single contiguous set of available time slots (col. 3, lines 45-50; fig. 2 and corresponding text to fig. 2).

Consider claim 5. Auger further teaches wherein the size of the set of available slots is equal to the requested size (col. 3, lines 34-41).

Consider claim 6. Auger further teaches wherein the size of the set of available slots is greater than the requested size (fig. 2, item Q1-Q4; col. 3, lines 50-60).

Consider claim 7. Auger further teaches wherein the searching step comprises searching for a set of available slots such that the available time slots are in multiple frequencies (fig. 2, item Q1-Q4).

Consider claim 8. Auger further teaches wherein the searching step comprises a greedy resource allocation strategy (col. 6, lines 35-55).

Art Unit: 2684

Consider claim 9. Auger further teaches wherein the greedy resource allocation strategy comprises the following successive allocation steps: searching for a single contiguous set of available time slots in a single frequency, where the size of the set of available slots is equal to the requested size (col. 3, lines 50-60); searching for a single contiguous set of available time slots in a single frequency, where the size of the set of available slots is greater than the requested size (col. 3, lines 60 to col. 4, line 6); searching for separate chunks of available time slots in a single frequency (col. 3, lines 50-60); and searching for separate chunks of available time slots in multiple frequencies (col. 3, line 60 to col. 4, line 6).

Consider claim 10. Auger further teaches wherein each allocation step comprises checking whether the allocation violates a frequency switching constraint (col. 4, line 4-6; col. 4, lines 50-60).

Consider claim 12. Auger further teaches updating the channel matrix and transmitting a notification of allocation to a user (col. 6, lines 45-55).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Auger et al. (Auger; patent no. 6,094,425).

Consider claim 11. Auger teaches all of the claimed limitations as disclosed in claim 1 above, except, combining the received request with other requests and prioritizing the combined

Art Unit: 2684

requests. However, the examiner takes "Official Notice" of the fact that is notoriously well-known in the art that prioritizing the received request in order to provide special treatment to a user with a priority.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combining the received request with other requests and prioritizing the combined requests within Auger's system such that a use with a higher priority can get the access quicker than the other user.

***Citation of Pertinent Prior Art***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Besson et al. (6,381,461) discloses a method and system for transmitting data in a mobile radio network;

Tiedemann, Jr. et al. (6,317,435) recites a method and apparatus for maximizing the use of available capacity in a communication system;

Whitehead (6,295,285) discloses a global packet dynamic resource allocation for wireless networks;

Chuang et al. (6,052,594) discloses a system and method for dynamically assigning channels for wireless packet communications;

Bauchot (5,970,062) recites a method and apparatus for providing wireless access to an ATM network;

Raith et al. (5,818,829) discloses a method for increasing throughput capacity in a communication system;

Art Unit: 2684

Scholefield et al. (5,742,207) recites a method for communicating data in a wireless communication system; and


Dupont (5,535,207) discloses a method of dynamically allocating time slots on a packet data communications channel.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanmay S Lele whose telephone number is (703) 305-3462. The examiner can normally be reached on 9 - 6:30 PM Monday – Thursdays and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (703) 308-7745. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

  
Tanmay S Lele  
Examiner  
Art Unit 2684

tsl  
March 2, 2004

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER